



PRODUCT INFORMATION

**HAIPLEN H50 Y0**

Polypropylene homopolymer medium flow, halogen free flame retardant UL94 V0, good mechanical properties.

**ISO short** ISO 1043: PP FR(40)  
**Form** Pellets  
**UL file** E143048

**Key Features**

- Designed for injection moulding applications
- Halogen free
- Flame retardant
- Low density
- Antimony trioxide free

**Availability**

- XMT: long-term service stability for contact with copper
- LP: laser printable
- L: UV stabilized
- H: heat stabilized
- D: detergent stabilized
- All colours

**Compliance**

- UL94 V0 approved all colours at 1,6 mm.

**Process**

- INJECTION MOULDING

**Application**

- Power tools
- Household
- Electronic
- Electrical

Property	Method	Unit	Value	Condition	State
<b>ELECTRICAL</b>					
Dielectric Strength	IEC 60243-1	kV/mm	25		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	600		
<b>PHYSICAL</b>					
Density (+23°C)	ISO 1183	g/cm <sup>3</sup>	1,05		
Water Absorption (24h / +23°C)	ISO 62	%	0,08		
Mould Shrinkage (Parallel)	Internal method	%	1,2		
Mould Shrinkage (Normal)	Internal method	%	1,2		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	10	230°C - 2,16 kg	

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Unless specified to the contrary, the given values have been established on standardized test specimens at room temperature. These values are for natural colour only. The figures should be regarded as guide values only and not as binding minimum values. Please note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions, pigments and any other additives.

All information, recommendation or technical advice provided by TARO PLAST S.p.A. are given in good faith but without warranty, to the best of its knowledge and based on current procedures in effect. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing methods and conditions of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely under your own responsibility.

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**MECHANICAL**

Tensile Modulus	ISO 527-1,2	MPa	2800	Speed 1 mm/min
Tensile Yield Strength	ISO 527-1,2	MPa	30	Speed 50 mm/min
Elongation at Break	ISO 527-1,2	%	5,0	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	2500	Speed 1 mm/min
IZOD Notched Impact (+23°C)	ASTM D256	J/m	30	

**THERMAL**

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	155	50°C / h
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	95	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	90	120°C / h
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	130	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	125	
Continuous service temperature (20.000 h)	UL746 B	°C	85	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K <sup>-1</sup>	7,5x10E(-5)	

**FLAMMABILITY**

Flame Behaviour (1,6 mm)	UL94	Class	V0	UL approved
Flame Behaviour (3,2 mm)	UL94	Class	V0	
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	960	
Glow Wire Ignition Temperature-GWIT (1,6 mm)	IEC 60695-2-13	°C	750	
Oxygen index	ASTM D2863	%	28	

**INJECTION MOULDING**

	Value
Drying Temperature (Desiccant Dryer)	70 - 80°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,2%
Suggested Max Regrind	< 15%
Melt Temperature	190 - 230°C
Feed Temperature	160°C
Rear Temperature	175°C

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Middle Temperature	200°C
Front Temperature	210°C
Nozzle Temperature	220°C
Back Pressure	5 - 10 Mpa
Screw Revolving Speed	< 300 mm/sec
Cushion	< 5 mm
Vent Depth	0,05 mm

**Notes** It is normally not necessary to dry HAIPLEN compounds, however should there be surface moisture (condensate) on the moulding compound as a result of incorrect storage, drying process is required. HAIPLEN must be stored indoors at a temperature below 40°C / 105°F avoiding humidity and direct sunlight as well. HAIPLEN can be processed on a standard injection moulding unit. A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition and 20% metering. When the heating cylinder is completely purged of HAIPLEN material the machine may be shut down. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine or extruder size, part geometry and design.

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